

USN ANALYSIS OF ALTERNATIVES (AoA) PROCESS OVERVIEW

INTRODUCTION

An analysis of alternatives (AoA), tailored to the scope, phase, ACAT-level, and needs of each program, is conducted prior to and considered at appropriate milestone decisions, for all Department of the Navy (DON) programs. The analysis of alternatives aids in resolving Milestone Decision Authority (MDA) issues and provides the basis for establishing program thresholds, cost and performance trade-offs, and a formulation of the analytical underpinnings for program decisions.

This paper provides an overview of the DON AoA process and the organizations involved in performing these analyses. The process used in these DON AoAs is derived from DoD 5000 series documentation, the OSD Acquisition Reform Deskbook, and SECNAVINST 5000.2B (dated 6 December 1996).

RESPONSIBILITY

The Secretary of the Navy (SECNAV), the Chief of Naval Operations (CNO), and the Commandant of the Marine Corps (CMC) jointly share the responsibility for the Navy AoA process. This responsibility is jointly delegated for all ACAT level acquisitions to the Assistant Secretary of the Navy (Research, Development, and Acquisition) (ASN(RD&A)) and the Deputy Chief of Naval Operations (Resources, Warfare Requirements, and Assessments) (DCNO N8). For ACAT IV programs, authority is further delegated to the appropriate systems command (SYSCOM) (e.g. Naval Air Systems Command (NAVAIRSYSCOM), Space and Warfare Systems Command (SPAWAR), Naval Sea Systems Command (NAVSEASYSYSCOM), or Program Executive Officer (PEO), and the CNO office program sponsor (the CNO-designated office N-XX). PEOs typically involved in AoAs will be from the following program areas: Tactical Air, ASW/Assault & Special Missions, Cruise Missiles/UAVs, JAST, Undersea Warfare, Submarines, Theater Air Defense, and Mine Warfare. Central management and coordination of all AoAs for the Navy and Marine Corps rests within the CNO N81 Assessment Division.

FUNDING

Responsibility for coordinating the AoA funding lies with the program's requirement sponsor. For established programs which are post-Milestone I, the requirements sponsor normally budgets the appropriate funds while the Program Manager executes the funding. However, funding for pre-milestone I analyses require alternate funding sources. Typically, this funding is obtained from within the Navy's Federally Funded Research and Development Centers (FFRDCs) or analysis funding lines within the Navy's SYSCOMs and warfare centers. FFRDCs typically used by the Navy include the Center for Naval Analyses (CNA) and the Applied Physics Laboratory (APL) of the Johns Hopkins University. The warfare centers involved in AoAs are dependent on which types of systems are considered. For example, if the AoA involves consideration of aircraft weapon systems, the warfare centers involved may include analysis activities at the Naval Air Warfare Center (NAWC).

AoA INITIATION

The program sponsor (the CNO-designated office N-XX), in coordination with the appropriate Integrated Product Team (IPT) for ACAT Levels I through III, reviews the major issues for each candidate AoA, develops the scope for the analysis, and looks at the approximate cost of the AoA.

At a minimum, this scope of analysis shall identify the activity responsible for conducting the analysis, designate the analysis director (by name), alternatives to be addressed, proposed schedule and completion date, the AoA cost estimate, operational constraints associated with the need, and specific issues to be addressed. These issues shall be well thought out to ensure the analysis is comprehensive and addresses the MDA issues of the upcoming decision. For ACAT level IV programs, a program manager (PM) is appointed by the CNO. The PM need not consult the IPT and may go directly to the MDA and sponsor for AoA approval. However, the PM must still address the minimum items of importance to the program sponsor/IPT. The scope of analysis shall be approved by the individuals shown in the following table. The

CNO N 81 Assessment Division or the Commanding General, MCCDC shall be responsible for coordinating final approval of the analysis plan with CNO N8 (Deputy CNO for Resources, Warfare Requirements & Assessment) and the Deputy Chief of Staff for Plans and Requirements (DC/S P&R).

Table- Scope of Analysis Approval Level (by ACAT Program Level)

ACAT ID	ACAT IC/II	ACAT IV
ASN (RD&A), or designee, and CNO(N8) or DC/S (P&R)	MDA, or designee, and CNO (N8) or Sponsor (flag) or DC/S (P&R)	MDA and Program CG, MCCDC

Note:

CG, MCCDC- Commanding General, Marine Corps Combat Development Command
DC/S (P&R)- Deputy Chief of Staff for Planning and Requirements

ANALYSIS

Based on CNO (N8)/ ASN (RD&A), or designee (for ACAT I and II programs) or CNO (N8)/MDA approval of the IPT recommendations for analysis director/team, the appropriate analysis center for the AoA is selected from an FFRDC, SYSCOM, naval laboratories, or appropriate contractor. If a contractor is selected to perform the AoA, the Navy will typically appoint representatives from the an FFRDC or SYSCOM to oversee the analysis effort. The analysis center director (typically recommended by the IPT) is responsible for planning and supervising the study and coordinating funding for the effort with the program manager. The analysis director, at a minimum, must organize his/her analysis team by selecting the best operational effectiveness and costing representatives from the following organizations:

ASN (RD&A) representative
N81 representative (Deputy CNO, Resources, Warfare Requirements & Assessment, Assessment Division)
N80 representative (Deputy CNO, Resources, Warfare Requirements & Assessment, Programming Division)
N2 representative (Director of Naval Intelligence)
N4 representative (Deputy Chief of Naval Operations for Logistics)
N091 representative (Director Naval Test and Evaluation & Technology Requirements)
cost analysis representatives (typically from the Naval Center for Cost Analysis or NAVAIRSYSCOM 524)
sponsor representative
PEO/SYSCOM representative(s)
PM representative
others as appropriate (from Center for Naval Analyses, USMC, DON DIO, and warfare centers) .

For ACAT level IV programs, the development of an analysis team as identified above, is at the discretion of the MDA.

This analysis team is responsible for preparation of the analysis plan and execution of the analysis efforts involved in the AoA. The analysis plan must have, at a minimum, the following sections:

Issues
Alternatives Considered
Scenarios
Models
Measures of Effectiveness (MOEs)

Workplan and Plan of Action and Milestones (POA&M).

AoA APPROVAL PROCESS

As the AoA is performed, the analysis director (and appropriate team members) provide periodic briefings and progress reports to the AoA approval authorities. For ACAT I through III level programs, the team briefs an AoA IPT consisting of members from the following naval organizations:

- DASN (RD&A)/PM
- ASN (Financial Management and Comptroller, FM&C)
- ASN (Manpower & Reserve Affairs, M&RA)
- ASN (Installation & Environment, I&E)
- N8/N80/N81/N82
- N1 (Deputy CNO Manpower and Personnel)
- N4
- N6 (Director, Space and Electronic Warfare)
- N7 (Director of Naval Training)
- OPNAV Sponsor
- PEO/SYSCOM
- Office of Program Appraisal (OPA)
- General Counsel
- Commander, Operational Test and Evaluation Forces (COMPTEVFOR)
- Deputy Anti-Ballistic Missiles (ABM)/Director
- DASN Action Officer
- Naval Center for Cost Analysis (NCCA) .

Following these briefings, the AoA director seeks AoA approval from the N8/ASN (RD&A) or a designee on ACAT I and II level programs. For ACAT III level programs, the AoA director can consult N8 and the MDA for approval. For ACAT IV level programs, the AoA director can consult the sponsor and MDA for AoA approval. For all ACAT levels, the AoA team may be asked to provide a final report (if required).